

Divider Networks

BN 115C, CN 115C / CN 110C

► Precision divider networks

Such networks are used for the precise setting of the amplification at operational amplifiers, at input-circuits for DMM's and similar precise measuring instruments.

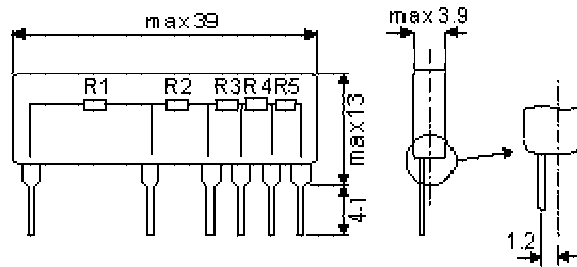
In this context the most important requirement is the relative tolerance of the dividing factors. In addition these dividing factors shall be distinguished by the lowest possible deviations within the allowed temperature range.

Thus a high temperature tracking of the used resistors is necessary.

Networks of series BN and BK meet these requirements perfectly. Relative tolerances of about 0.025% and a TC-tracking of $<3 \times 10^{-6}/^{\circ}\text{C}$ can be achieved (depending on resistor value and temperature range).

BN 115C

► Dimensions



Pitch (RM) = 2,54mm

► Resistance ranges, tolerances and TC's

Tolerance	$\pm 0.25\%$	$\pm 0.25\%$
Resistance ranges	9M - 1K	9M - 900R

► Ratings by IEC 60115-1

Limiting element voltage	RM	$\cong 1200 \text{ V}$
Rating voltage	9x	R1 (9M) 1100 V
	2x	R2 (900K) 300 V
	1x	R3 (90K) 150 V
	1x	R4 (9K) 50 V
	1x	R5 (1K, 900R) 15 V
Temp. characteristics (abs)		$\pm 25 \times 10^{-6}/^{\circ}\text{C}$
TC tracking		(-25°C bis 125°C) $< 50 \times 10^{-6}/^{\circ}\text{C}$
		(-10°C bis 85°C) $< 25 \times 10^{-6}/^{\circ}\text{C}$
		(0°C bis 85°C) $< 10 \times 10^{-6}/^{\circ}\text{C}$
Tolerance tracking		$< 0.05\%$
		$< 0.10\%$
		$< 0.25\%$
Climatic category		55 / 125 / 56
Insulation resistance		$> 10^{10} \Omega$
Voltage coefficient		$< 0.5 \times 10^{-6} / \text{V}$
Marking		letter
Weight (100 pcs)		ca. 300 g

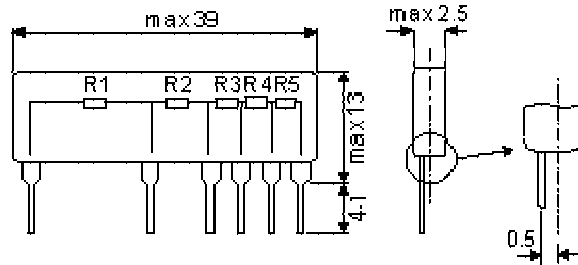
► Values on stock

9M – 1K	Tolerance rel. 0.05 / 0.1% / 0.25%
9M – 900 R	Tolerance rel. 0.05 / 0.1% / 0.25%

Divider Networks BN 115C, CN 115C / CN 110C

CN 115C

► Dimensions



Pitch (RM) = 2,54

► Resistance ranges, tolerances and TC's

Tolerance	± 0.50%	± 0.50%
Resistance ranges	9M - 1K	9M - 900R

► Ratings by IEC 60115-1

Limiting element voltage	RM	≅ 1200 V
Rating voltage	9x	R1 (9M) 1100 V
	2x	R2 (900K) 300 V
	1x	R3 (90K) 150 V
	1x	R4 (9K) 50 V
	1x	R5 (1K, 900R) 15 V
Temp. characteristics (abs)		± 100x10 ⁻⁶ /°C
TC tracking		(-25°C bis 125°C) < 50x10 ⁻⁶ /°C
Tolerance tracking		< 0.50%
Climatic category		55 / 125 / 56
Insulation resistance		> 10 ¹⁰ Ω
Voltage coefficient		< 5 x 10 ⁻⁶ / V
Marking		letter
Weight (100 pcs)		ca. 190 g

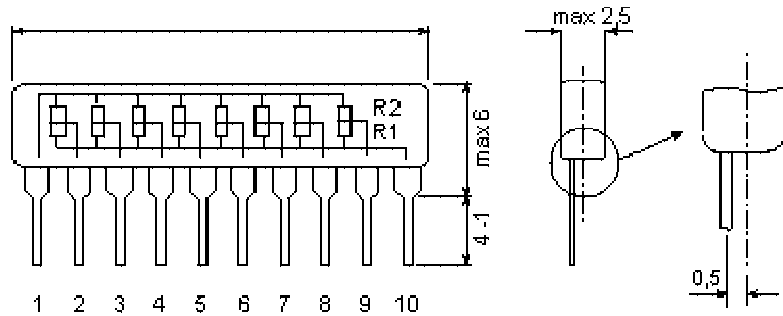
► Values on stock

9M - 1K	Tolerance rel. 0.50%
9M - 900 R	Tolerance rel. 0.50%

Divider Networks BN 115C, CN 115C / CN 110C

CN 110C

► Dimensions



► Resistance ranges, tolerances and TC's

Tolerance	± 2%	± 1%	± 2%	± 5%
Resistance ranges	50R - <100R22M	100R - 1M	>1M - 5M	>5M - 10M

All values within the resistance range are available.
Lower tolerance-values upon request.

► Ratings by IEC 60115-1

Thermal resistance		max. 75 K/W
Limiting element voltage		≅ 100 V
Rated dissipation	$P_{70} (\vartheta_o = 125 \text{ }^\circ\text{C})$	0,73 W
	$P_{40} (\vartheta_o = 125 \text{ }^\circ\text{C})$	1,13 W
Climatic category		55 / 125 / 56
Temp. characteristics (abs)		$\pm 100 \times 10^{-6} / ^\circ\text{C}$
TC tracking		$< 50 \times 10^{-6} / ^\circ\text{C}$
Insulation resistance		$> 10^{10} \Omega$
Voltage coefficient		$< 5 \times 10^{-6} / \text{V}$
Marking		letter
Weight		53 g

► Values on stock

180/220R	2%
220/330R	2%
330/470R	2%
3K/6K2	2%